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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/057,290

01/24/2002

Rei-Row Hu

GLXY117745

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05/24/2004

CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC  
1420 FIFTH AVENUE  
SUITE 2800  
SEATTLE, WA 98101-2347

EXAMINER

WASSUM, LUKE S

ART UNIT

PAPER NUMBER

2177

2

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/057,290

**Applicant(s)**

HU, REI-ROW

**Examiner**

Luke S. Wassum

**Art Unit**

2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan (90108586) on 10 April 2001. It is noted, however, that applicant has not filed a certified copy of the Japanese Patent application as required by 35 U.S.C. 119(b).

### *Oath/Declaration*

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the foreign application for patent or inventor's certificate on which priority is claimed pursuant to 37 CFR 1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application number, country, day, month and year of its filing.

In this case, the Oath/Declaration cites a Taiwanese patent, when in fact the patent relied upon for priority is a Japanese patent application.

### *The Invention*

3. The claimed invention is for a system to extract both explicit and implicit social relations from a social-relation database.

### *Drawings*

4. The application includes informal (hand drawn) drawings. While these drawings are acceptable for examination purposes, the examiner encourages the Applicant to submit formal

Art Unit: 2177

drawings at the earliest opportunity. Early submission of formal drawings will help expedite post-allowance processing and publication of the issued patent.

### *Specification*

5. In the specification on page 1, lines 5-7, the Applicant has incorporated by reference the priority document, Taiwanese Patent Application No. 90108586.

6. The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

### *Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2177

8. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by **Kautz et al.** ("The Hidden Web").

9. Regarding claims 1 and 7, **Kautz et al.** teaches a method and computer-readable medium for performing a database search concerning social relations of a first entity as claimed, comprising:

- a) in response to a search request received from a search requester, the search request containing identification of a first entity, extracting explicit relations concerning the first entity (see query interface in Figure 2, page 32); and
- b) extracting implicit relations concerning the first entity based on the extracted explicit relations (see resultant extracted explicit and implicit relations in Figure 3, page 34).

10. Regarding claim 13, **Kautz et al.** teaches an apparatus for performing a database search concerning social relations of a first entity as claimed, comprising:

- a) a processing unit (implicit in a computer system); and
- b) a storage medium coupled to the processing unit, the storage medium storing program code implemented by the processing unit for performing the steps of:
  - i) in response to a search request received from a search requester, the search request containing identification of a first entity, extracting explicit relations concerning the first entity (see query interface in Figure 2, page 32); and
  - ii) extracting implicit relations concerning the first entity based on the extracted explicit relations (see resultant extracted explicit and implicit relations in Figure 3, page 34).

11. Regarding claims 2, 8 and 14, **Kautz et al.** additionally teaches a method, apparatus and computer-readable medium wherein the explicit and implicit relations are extracted based on a search level received from the search requester (see entry of a neighborhood radius, analogous to the claimed search level, in Figure 2, page 32).

12. Regarding claims 3, 9 and 15, **Kautz et al.** additionally teaches a method, apparatus and computer-readable medium further comprising:

- a) formatting the extracted explicit and implicit relations (see resultant extracted explicit and implicit relations in Figure 3, page 34); and
- b) sending the formatted explicit and implicit relations to the search requester (see resultant extracted explicit and implicit relations in Figure 3, page 34).

13. Regarding claims 4, 10 and 16, **Kautz et al.** additionally teaches a method, apparatus and computer-readable medium which is implemented over a network, wherein the explicit and implicit relations concerning the first entity are obtained from a social-relationship database coupled to the network (see disclosure of the global network model, page 32, second column).

14. Regarding claims 5, 11 and 17, **Kautz et al.** additionally teaches a method, apparatus and computer-readable medium wherein the network comprises the Internet (see disclosure that the current version of ReferralWeb uses co-occurrence of names in close proximity in any documents publicly available on the WWW as evidence of a direct relationship, page 32, first column).

Art Unit: 2177

15. Regarding claims 6, 12 and 18, **Kautz et al.** additionally teaches a method, apparatus and computer-readable medium wherein the search request further contains identification of a second entity, and explicit and implicit relations between the first and second identified entities are extracted (see dialog box for entry of second entity, labeled "Find a path to a particular person", in Figure 2, page 32).

### *Conclusion*

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Jordan et al.** (U.S. Patent 5,745,113) teaches a system for recording and displaying information about work practice, including a relationship editor for entering, editing, displaying and printing relationship diagrams.

**Smith et al.** (U.S. Patent 6,594,673) teaches an interactive collaborative information visualization system that provides improved visualizations of relationships or connections in collaborative information.

**Kautz et al.** ("ReferralWeb: Combining Social Networks and Collaborative Filtering") teaches an interactive system for reconstructing, visualizing and searching social networks on the World Wide Web.

**Shah** ("ReferralWeb: A Resource Location System Guided by Personal Relations") teaches an interactive prototype which assists in locating experts on user specified topics by analyzing only publicly available resources.

**Watts et al.** ("Collective Dynamics of 'Small-World' Networks") teaches simple models of networks that can be tuned to introduce increasing amounts of disorder.

**Ogata et al.** ("Collecting Organizational Memory Based on Social Networks in Collaborative Learning") teaches the PeCo-Mediator-II system for seeking for a collaborator with the chain of personal connections in distributed organizations.

**Ogata et al.** ("SocialPathFinder: Computer Supported Exploration of Social Networks on WWW") teaches an Internet and WWW based application for seeking for a collaborator with the chain of personal connections in WWW.

**Ogata et al.** ("Combining Social Networks and Collaborative Learning in Distributed Organizations") teaches the PeCo-Mediator-II system for seeking for a collaborator with the chain of personal connections in distributed organizations.

**Kautz et al.** ("Creating Models of Real-World Communities with ReferralWeb") teaches a tool to aid in finding experts on arbitrary topics.

**Kautz et al.** ("Creating Models of Real-World Communities with ReferralWeb") is a PowerPoint™ presentation on the ReferralWeb system.

**Kautz et al.** ("Welcome to ReferralWeb") is a web page describing the ReferralWeb project.

**Kleinberg** ("The Small-World Phenomenon: An Algorithmic Perspective") teaches that there is a unique model within the family of network models for which decentralized algorithms are effective in constructing short paths between two points in a social network.

The following references, while not qualifying as prior art, are also of interest:

**Farnham et al.** (U.S. Patent Application Publication 2003/0158855) teaches a computer system that models human memory by deriving associations between objects, events, and the context of the computer user or users.



**Watts et al.** ("Identity and Search in Social Networks") teaches a model that offers an explanation of social network searchability in terms of unrecognizable personal identities: sets of characteristics measured along a number of social dimensions.

**CamWorld** ("Six Degrees of Weblogs") teaches a utility that finds the shortest path between two weblog URLs.

**Watts et al.** ("Networks, Search and the Small-World Problem") is a PowerPoint™ presentation showing various approaches to solving the small-world search problem.

**Glasner** ("Social Nets Find Friends in VCs") teaches the emergence of social-networking websites.

**Marshall** ("VCs on the Hunt for Next Hot 'Social Networking' Service") teaches the popularity of social networking websites with venture capitalists.

**Reynolds** ("The Oracle of Bacon") is a search engine which finds connections between actors and actresses which have starred in the same movies/television shows, through the use of the Internet Movie Database (IMDB).

[www.eurekster.com](http://www.eurekster.com) ("The Science Behind Eureka") is a service that uses the combined knowledge and experience of a member's social network to personalize and improve search results.

[www.tribe.net](http://www.tribe.net) ("About tribe.net") is a service that provides tools that help a user to tap the power of social networks.

[www.friendster.com](http://www.friendster.com) ("What is Friendster?") is an online community that connects people through networks of friends for dating or making new friends.

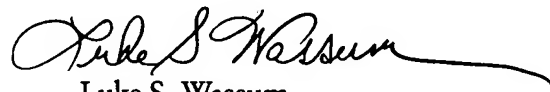
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke S. Wassum whose telephone number is 703-305-5706. The examiner can normally be reached on Monday-Friday 8:30-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

In addition, INFORMAL or DRAFT communications may be faxed directly to the examiner at 703-746-5658.

Customer Service for Tech Center 2100 can be reached during regular business hours at (703) 306-5631, or fax (703) 746-7240.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Luke S. Wassum  
Art Unit 2177

18 May 2004